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February 26, 2007

YOUR REF: SLA1347

OUR REF: SU102/358/EP SHARP REF: 04R00067/EP

Re: Partial European Search Report
of European Patent Application No. 04023233.2

<u>based on U.S. Patent Application No. 10/676,312</u>

Dear Sirs.

Concerning the above identified EP application, we enclose a copy of a partial European Search Report issued on February 16, 2007, References and EP Attorney's letter of February 21, 2007.

PLEASE ACKNOWLEDGE RECEIPT OF THIS LETTER BY FACSIMILE.

Very truly yours,
NAGISA PATENT OFFICE

N Akichika TAKAN(

MÜLLER, HOFFMANN & PARTNER

PATENTANWÄLTE

Telefax: 9 Pages

Original follows via mail

Müller - Hoffmann & Partner - P.O. Box 80 12 20 - D-81612 München

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European Patent Application No. 04 023 233.2 SHARP KABUSHIKI KAISHA Your Ref.: SU102/358EP

Our File: 56269

Dear Mr. Takano,



21.02.2007 Mü/Ko/gu

Please find enclosed duplicate copies of an EPO Communication dated February 16, 2007 transmitting the Partial European Search Report under Rule 46(1) EPC.

We further enclose a LACK OF UNITY OF INVENTION Statement of the EPO indicating that the EPO Search Division considers that the application relates to nine groups of inventions, namely:

- a first invention referring to claims 1 to 37, 45 to 46 and 47 to 54;
- a second invention referring to claims 38 to 44;
- a third invention referring to claims 55 to 60, 61 to 63, 106 to 107 and 108 to 109;
- a fourth invention referring to claims 64 to 66 and 104 to 105;
- a fifth invention referring to claims 67 to 75, 76 to 78 and 102 to 103;
- a sixth invention referring to claims 79 to 87;
- a seventh invention referring to claims 88 to 91;
- an eighth invention referring to claims 92 to 93, 94 to 95 and 96 to 101; and
- a nineth invention referring to claims 110 to 111 and 112 to 113.

We further enclose a Patent Family Members List as well as two copies of each prior art document considered to be relevant by the Search Examiner. The documents have been evaluated for category "X".

In the enclosed EPO Communication, you will find the invitation to the Applicant to pay eight further search fees with respect to the above mentioned inventions.

European Patent Application No. 04 023 233.2

As you might know, the non-payment of an additional search fee has no direct consequences at this time. However, if at a later time during examination the Primary Examiner should confirm the Lack of Unity of Invention Statement of the Search Examiner, it will no longer be possible to combine the claims of the further inventions with any of the claims of the first invention.

Of course, also at that time during examination it will be possible to argue in respect of unity of invention and/or to file one or several divisional applications.

The EPO has fixed a period of only one month for deciding whether or not an additional search fee should be paid. This period ends on

March 16, 2007.

If we do not receive any instructions from you at the latest by

March 9, 2007.

we will assume that no further additional search fee should be paid.

Please confirm safe receipt of this telefax letter.

Very truly yours,

Dieter Kottmann

Enclosures

- 2 x EPO Communication of February 16, 2007 with
 - EPO Partial Search Report
 - LACK OF UNITY OF INVENTION Statement
 - Abstract
 - Patent Family Members List
 - Prior Art Documents (by mail only)
- 1 x General Information

GENERAL INFORMATION with Respect to EPO/DE-PTO Search Reports/Examination Reports

Prior art documents cited and enclosed with the Search Report/Examination Report of the European Patent Office (EPO) or German Patent and Trademark Office (DE-PTO) are sometimes incomplete or of poor quality. We transfer those documents to you as we receive them.

If you should realize missing parts of such documents, please inform us. However, please note that after filing a request with the EPO or the DE-PTO for sending us the complete or corrected documents, it takes several weeks until we receive an answer.

In special or urgent cases we can offer to order the missing parts of such documents for you via our own copy services in the EPO or DE-PTO, respectively. However, this will regularly cause extra cost.

MÜLLER HOFFMANN & PARTNER



Müller - Hoffmann & Partner Patentanwälte, Innere Wiener Strasse 17 81667 München

EINGEGANGEN MÜLLER • HOFFMANN & PARTINER 20. Feb. 2007 Frist LT 16.03.02L

EPO Customer Services Tel.: +31 (0)70 340 45 00

Date

16.02.07

Reference 56269 Mü/rs

ALLEMAGNE

Application No./Patent No. 04023233.2 - 1228

Applicant/Proprietor

SHARP KABUSHIKI KAISHA

Communication

The European Patent Office herewith transmits the partial European search report under Rule 46(1) EPC relating to the above-mentioned European patent application.

Copies of the documents cited in the search report are enclosed.

The applicant's attention is drawn to the following:

The Search Division informs the applicant that if the European search report is also to cover inventions other than the invention first mentioned in the claims, a further search fee must be paid for each of these inventions, within one month after notification of this communication.

For applications with a filing date up to 30 June 1999, the amount payable for a search fee requested under Rule 46(1) EPC is EUR 869,— (OJ EPO 2006, 495). For applications with a filing date between 1 July 1999 and 30 June 2005, the amount payable for a search fee requested under Rule 46(1) EPC is EUR 690,— (OJ EPO 2006, 495).

- The abstract was modified by the Search Division and the definitive text is attached to the present communication.
- Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

Note to users of the automatic debiting procedure:

Unless the EPO receives prior instructions to the contrary, the search fee(s) will be debited on the last day of the period for payment. For further details see the Arrangements for the automatic debiting procedure, Supplement No.2 to Official Journal No.01/2005.





PARTIAL EUROPEAN SEARCH REPORT

Application Number

under Rule 46, paragraph 1 of the European Patent EP $\,$ 04 $\,$ 02 $\,$ 3233 Convention

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|--|---|---|--|------------------------------------|--|
| Category | Citation of document with of relevant pas | indication, where appropriate, sages | Relev to clai | | CLASSIFICATION OF THE APPLICATION (IPC) |
| X | USING FEED-BACKWARI IDW. PROCEEDINGS OF DISPLAY WORKSHOPS, 4 December 2002 (20 211-214, XP00904949 | 002-12-04), pages 91 aragraph - page 213, | 1-37, 45-54 | | INV. G09G3/36 |
| X | to digital hd lc-tv IDW. PROCEEDINGS OF DISPLAY WORKSHOPS, 4 December 2002 (20 323-326, XP00904949 | technology applicable /s" THE INTERNATIONAL XX, XX, 002-12-04), pages | 1-37, 45-54 | | |
| X . | AL) 27 March 2003 (| TAKAKO ADACHI [JP] ET 2003-03-27) - [0116]; figure 4b * | 45-54 | | TECHNICAL FIELDS SEARCHED (IPC) |
| | OF UNITY OF INVENT | | | | |
| The Searce the require namely: | h Division considers that the present ements of unity of invention and relate | European patent application does not con as to severalinventions or groups of invent | nply with ions, | | |
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| The preser | nt partial European search report has lication which relate to the invention | s been drawn up for those parts of the Euro | ppean | | |
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| X : partic Y : partic docur A : techr O : non- | TEGORY OF CITED DOCUMENTS cularly relevant if taken alone cularly relevant if combined with another of the same category notogical background written disclosure nediate document | T : theory or print E : earlier patent after the filing her D : document cite L : document cite | ciple underlying document, but date ed in the applica d for other reas | the in publish ation sons | vention hed on, ar |

LACK OF UNITY OF INVENTION SHEET B

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-37, 45-46, 47-54

feedback overdrive using predicted displayed luminance value

2. claims: 38-44

feedback overdrive using previous capacitance value

3. claims: 55-60, 61-63, 106-107, 108-109

overdriving based on plural images using a non-recursive circuit

4. claims: 64-66, 104-105

overdriving based on luminance value yet to be displayed

5. claims: 67-75, 76-78, 102-103

overdriving in dependence of image content or image information

6. claims: 79-87

overdriving using two lookup-tables of different size and dimensions

7. claims: 88-91

overdriving using two functions of different order

8. claims: 92-93, 94-95, 96-101

content of buffer modified in dependence of the fact whether a pixel was overdriven or not

9. claims: 110-111, 112-113

overdriving using voltages higher/lower than maximum/minimum gray scale

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

| Patent document cited in search report | | | Publication date | Patent family member(s) | | Publication date | |
|---|------------|---------|-------------------------|----------------------------|---------------------------|------------------|--------------------------|
| บร | 2003058264 | A1 | 27-03-2003 | JP KR | 2003172915 20030027738 | | 20-06-2003 07-04-2003 |
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ABSTRACT / ZUSAMMENFASSUNG / ABREGE

04023233.2

Processing of images for displaying images on a liquid crystal display with improved luminance.

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